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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/566,170

01/27/2006

Yoshinobu Sekiguchi

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EXAMINER

LEE, CALVIN

ART UNIT	PAPER NUMBER
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2818

MAIL DATE	DELIVERY MODE
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10/15/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/566,170	Applicant(s) SEKIGUCHI et al.	
	Examiner Calvin Lee	Art Unit 2818	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27-31 is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 17-26 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 1/27/06 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>11/29/06 & 5/2/07</u> . | 6) <input type="checkbox"/> Other: ____. |

OFFICE ACTION

Claim Rejections - 35 U.S.C. § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the US before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the US before the invention by the applicant for patent.

2. Claims 1-9, 11, and 14 are rejected under 35 U.S.C. 102(e) as being unpatentable over *Lahreche et al* (US 2005/0217565).

Lahreche et al discloses method of manufacturing a semiconductor film separated from a seed substrate, comprising the steps:

- a separation layer forming step of hetero-epitaxially growing a separation layer 5 on the seed substrate 1 [Fig. 4];
- a semiconductor film forming step of forming a semiconductor film 7 on the separation layer 5;
- and a separation step of separating, by using the separation layer, the semiconductor film from a composite member formed in the semiconductor film forming step [Fig. 5 and pg. 4].

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious to one having skills in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention made.

4. Claim 10, 12-13, and 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Lahreche et al* (US 2005/0217565).

Lahreche et al does not explicitly teach or suggest the seed substrate and/or separation layer made of chosen materials. However, it's a matter of design choice to preferred layer materials.

It would have been obvious to one having skills in the art to utilize the teaching of *Lahreche et al*, and thus arrive at the claimed invention, since it has been held to be within the general skill in the art to select desired materials of the semiconductor layers on the basis of its suitability for the intended use as a matter of obvious design choice. *In re Leshin*, 125 SUPQ 416.

Allowable Subject Matter

5. Claims 17-26 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims because none of the available references teach or suggest “a separation assisting layer by using a material to be selectively etched ... to the substrate and the separation layer;” “a device forming step of forming a semiconductor device on the semiconductor film;”

Claims 27-31 are allowed since *Lahreche et al* '565 is silent about both “bonding step of bonding the seed substrate with the separation layer and the semiconductor film to a handle substrate while setting the separation layer inside; and a separation step of separating the semiconductor film, ... from a composite member formed in the bonding step to obtain a substrate having the semiconductor film on the handle substrate.”

Contact Information

6. Any inquiry concerning this communication from the Examiner should be directed to Calvin Lee at (571) 272-1896 on Mondays thru Thursdays 6:30-4:30 (EST). If attempts to reach the examiner by telephone are unsuccessful, Art Unit 2818's Supervisory Patent Examiner *Steven Loke* can be reached at (571) 272-1657. The central fax number for the organization (where this application is assigned to) is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system at <http://pair-direct.uspto.gov> Should you have questions on access to the PAIR system, contact the Electronic Business Center at (866) 217-9197.

Dated: October 2, 2007



Calvin Lee